VWZD-29-10-475 LSSC B030749
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JOINT MESSAGEFORM

SECURITY CLASSIFICATION [redacted] W

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PRECEDENCE	TYPE MSG (Check)			ACCOUNTING SYMBOL	ORIG. OR REFERS TO	CLASSIFICATION OF REFERENCE
	BOOK	MULTI	SINGLE			
ACTION						
INFO						

FROM: VWZD
6595TH AEROSPACE TEST WING, VANDENBERG AFB, CALIF.

SPECIAL INSTRUCTIONS

TO:

SPACE SYSTEMS DIV. LOSA, CALIFORNIA

SUBJECT: EIGHT-HOUR FLASH REPORT

29-10-475

I. SUMMARY

A VEHICLE CONSISTING OF LV-2A BOOSTER NO. 386 AND SS-01A ORBITAL STAGE NO. 1601 WAS LAUNCHED ON THE FIRST ATTEMPT FROM VAFB COMPLEX 75-3, PAD 4, AT 1319:03.72 PST ON 29 OCTOBER 1963. THE PRIMARY LAUNCH OBJECTIVE, TO PLACE THE SS-01A SATELLITE WITH PAYLOAD IN POLAR ORBIT, WAS ACCOMPLISHED.

THE COUNTDOWN PROGRESSED SMOOTHLY WITH ONE HOLD OF 51 MIN IMPOSED FOR RANGE CLEARANCE (TRAINS). THE ASCENT PERFORMANCE OF ALL STAGES

[redacted]

DATE	TIME
29	
MONTH: Oct	YEAR: 63

WRITER

SYMBOL

TYPED NAME AND TITLE (Signature, if required)

PHONE | PAGE NR. 1 | NR. OF PAGES

SECURITY CLASSIFICATION [redacted]

RELEASER

SIGNATURE Laurence A. McQueen Maj USAF

TYPED (or stamped) NAME AND TITLE

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6595TH AEROSPACE TEST WING, VANDENBERG AFB, CALIF, VW ZD

GROUND GUIDANCE AND SPACE COMMUNICATIONS APPEARED TO BE SATISFACTORY.

THE VERLORT RADAR AND GROUND GUIDANCE INDICATED THAT THE NOMINAL TRAJECTORY WAS CLOSELY FOLLOWED THROUGH INJECTION. INFORMATION OBTAINED FROM FIRST PASS ACQUISITION INDICATED THE ATTAINMENT OF AN ADEQUATE ORBIT AND THAT THE BASIC VEHICLE SUBSYSTEMS WERE FUNCTIONING SATISFACTORILY.

II. SIGNIFICANT EVENTS

PRELIMINARY VALUES OF SIGNIFICANT LAUNCH EVENTS ARE:

LIFTOFF (1519:03.72 PST)	ZERO	
MER BURNOUT ON SOLID MOTORS	27.1	SEC
SOLID MOTOR THRUST TERMINATION	42.9	SEC
SOLID MOTOR JETTISON	65.5	SEC
STEERING INITIATED	92.50	SEC
STOP STEERING	144.07	SEC
MECO (S-1)	147.72	SEC
YECO	156.62	SEC
SEPARATION COMMAND	161.03	SEC

[redacted]

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SEPARATION COMPLETE	163.5	SEC
ULLAGE ROCKET IGNITION	203.6	SEC
SS-01A ENGINE IGNITION	206.65	SEC
SS-01A THRUST ATTAINMENT (90 PER CENT PC)	207.78	SEC
[redacted] SS-01A STEERING	216.57	SEC
END SS-01A STEERING	449.82	SEC
ENABLE SS-01A VELOCITY METER	451.56	SEC
SS-01A ENGINE SHUTDOWN (VELOCITY METER)	451.82	SEC
VTS TELEMETRY RADAR LOSS OF TRACK	521	SEC
VTS ACQUISITION BEACON FADE	548	SEC
VTS TELEMETRY DATA FADE (LINK 1)	552	SEC
VTS TELEMETRY SIGNAL STRENGTH FADE (LINK 2)	555	SEC

III. LV-2A, VEHICLE PERFORMANCE

ALL LV-2A SUBSYSTEMS PERFORMED SATISFACTORILY. ALL OBJECTIVES RELATED TO THE BOOSTER WERE ACHIEVED. MECO OCCURRED IN RESPONSE TO THE GROUND GUIDANCE COMMAND.

IV. COMMAND GUIDANCE

PERFORMANCE OF THE COMMAND GUIDANCE SYSTEM WAS SATISFACTORY. CONTINUOUS TRACK WAS MAINTAINED UNTIL 493.65 SEC WHEN THE MDGE WAS SHUTDOWN BY THE ASCENT TIMER.

QUICK-LOOK EVALUATION OF THE TRAJECTORY VECTOR AT GUIDANCE TERMINATION PREDICTED THE FOLLOWING VALUES:

INJECTION ALTITUDE	189.351	NM(NOMINAL 188.44)
INJECTION FLIGHT PATH ANGLE	0.169	DEG (NOMINAL 0.164)
ORBITAL PERIOD	90.923	MIN (NOMINAL 90.913)
INCLINATION ANGLE	90.028	DEG (NOMINAL 90.06)

V. SS-01A VEHICLE PERFORMANCE

ALL SS-01A VEHICLE SUBSYSTEMS PERFORMED SATISFACTORILY DURING LAUNCH TO PROVIDE ADEQUATE ORBITAL INJECTION CONDITIONS AT ENGINE SHUTDOWN.

CONTROL GAS EXPENDITURE WAS SLIGHT.

AT THE TIME OF TELEMETRY SIGNAL FADE AT VTS, THE ORBITAL TIMER WAS SET AT 5455 SEC (STEP 287)

IN THE RESET-ON POSITION, IN THE (DECREASE) MODE, AND ALTERNATE RE-ENTRY ARMED STATE.

VI. SPACE-GROUND COMMUNICATIONS

TELEMETRY DATA FROM ALL LINKS WERE SATISFACTORILY RECEIVED AND RECORDED.

THE VERADOT RADAR MAINTAINED CONTINUOUS AUTOMATIC TRACK UNTIL HORIZON SIGNAL FADE 70 SEC AFTER SS-01A ENGINE SHUTDOWN.

VII. COUNTDOWN

THE COUNTDOWN WAS INITIATED AT 0325 ON 27 OCTOBER 1963 AND PROCEEDED TO LIFTOFF WITH ONE TECHNICAL HOLD IMPOSED FROM 1215 TO 1336 PST FOR RANGE CLEARANCE (TRAINS IN AREA).

THE FOLLOWING PROBLEMS, NONE OF WHICH CAUSED A DELAY, WERE ENCOUNTERED:

(A) THE SS-01A LINK 2 CHANNEL 10 TELEMETER COMMUTATOR FAILED TO OPERATE WHEN COMMANDED DURING TASK 10 BUT PERFORMED SATISFACTORILY DURING REPEAT CHECKS IN TASK 10, FURTHER INVESTIGATION WAS WAIVED BY THE AIR FORCE.

(D) IN TASK 16, THE BLOCKHOUSE INDICATION OF SS-01A GUIDANCE GAS PRESSURE READ IN ERROR DUE TO A DEFECTIVE PRESSURE TRANSDUCER (AGE). TELEMETER AND PAD GAGE PRESSURE READINGS OF GUIDANCE GAS PRESSURE WERE USED THROUGH THE REMAINDER OF THE COUNTDOWN. ALSO DURING TASK 16, PERSONNEL WERE SENT TO THE PAD TO ADJUST LMSC (AGE) NITROGEN AND HELIUM GAS REGULATORS.

VIII. AEROSPACE GROUND EQUIPMENT (AGE)

THE AGE FUNCTIONED SATISFACTORILY TO SUPPORT CHECKOUT AND LAUNCH OF THE VEHICLE WITH THE FOLLOWING EXCEPTIONS:

(A) LMSC PAD NITROGEN AND HELIUM REGULATORS REQUIRED ADJUSTMENT.

(B) AN AGE PRESSURE TRANSDUCER FOR MEASURING SS-01A GUIDANCE GAS PRESSURE MALFUNCTIONED.

IX. PAD DAMAGE

DAMAGE TO THE PAD IS CONSIDERED TO BE LIGHT. THE REHABILITATION SCHEDULE CAN BE MAINTAINED.

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